

**COSMOS 2053 R/B**

**1989-100B**

**20390**

## **SATELLITE DATA**

TYPE: Tsyklon Third Stage  
OWNER: CIS  
LAUNCH DATE: 27 Dec 1989  
DRY MASS (KG): 1360  
MAIN BODY: Cone-cylinder; 2.1 m diameter by 3.3 m length  
MAJOR APPENDAGES: None  
ATTITUDE CONTROL: None  
ENERGY SOURCES: Unknown

## **EVENT DATA**

DATE: 18 Apr 1999                      LOCATION: 16.9S, 234.1E  
TIME: 0119 GMT                      ASSESSED CAUSE: Unknown  
ALTITUDE: 485 km

## **POST-EVENT ELEMENTS**

EPOCH: 99107.56102679                      MEAN ANOMALY: 26.3814  
RIGHT ASCENSION: 275.5509                      MEAN MOTION: 15.2912655517603  
INCLINATION: 73.5159                      MEAN MOTION DOT/2: .00003667  
ECCENTRICITY: .0010450                      MEAN MOTION DOT DOT/6: 00000-0  
ARG. OF PERIGEE: 333.6852                      BSTAR: .0013164

## **DEBRIS CLOUD DATA**

MAXIMUM  $\Delta P$ : 4.18 min  
MAXIMUM  $\Delta I$ : .66 deg

## **COMMENTS**

This is the 3<sup>rd</sup> event of the Tsyklon third stage (SL-14) identified to date, and the second within 14 months. All stages have been about 10 years old at the time of breakup. The vehicle is a Ukrainian-produced stage with unknown end-of-mission passivation. Its propellants are UDMH and N2O4. More than 60 debris objects were detected.

## **REFERENCE DOCUMENT**

"Third Tsyklon Upper Stage Breaks Up", The Orbital Debris Quarterly News, NASA JSC, July 1999.